REPLACEMENT CLAIMS

1) (CURRENTLY AMENDED) A method of producing a cloned non-human, non-primate mammalian NT embryo, the method comprising (a) introducing metaphase donor genetic material, in the form of a cell or nucleus, from a differentiated cell of a non-human, non-primate species into an metaphase oocyte of the same species, and (b) activating the oocyte, thereby yielding ~~to yield~~ a cloned non-human, non-primate mammalian NT embryo.

2) (ORIGINAL) The method of claim 1 wherein the donor genetic material introduced into the oocyte comprises a nucleus.

3) (ORIGINAL) The method of claim 1 wherein the donor genetic material introduced into the oocyte comprises an isolated nucleus.

4) (ORIGINAL) The method of claim 1 wherein the donor genetic material introduced into the oocyte is present in a donor cell.

5) (ORIGINAL) The method of claim 4 further comprising fusing the donor cell and the oocyte.

6) (PREVIOUSLY CANCELED)

7) (CURRENTLY AMENDED) The method of claim 1 wherein the differentiated cell is selected from the group consisting of a fibroblast, an epithelial cell, and a hematopoietic cell~~, and a lymphocyte~~.

8) (ORIGINAL) The method of claim 7 wherein the epithelial cell is a cumulus cell.

9) (CURRENTLY AMENDED) The method of claim 1 wherein the differentiated cell is obtained from a source selected from the group consisting of ~~a late embryogenic stage embryo,~~ a fetus, an adult, and a cultured cell line.

10) (ORIGINAL) The method of claim 1 wherein the donor genetic material comprises transgenic DNA.

11) (CURRENTLY CANCELLED)

12) (CURRENTLY AMENDED) The method of claim ~~11~~ 1 wherein activating the oocyte occurs before the donor genetic material is introduced into the oocyte.

13) (CURRENTLY AMENDED) The method of claim ~~11~~ 1 wherein activating the oocyte ~~or the NT embryo~~ occurs at ~~about~~ the same time the donor genetic material is introduced into the oocyte.

14) (CURRENTLY AMENDED) The method of claim ~~11~~ 1 wherein activating the ~~NT embryo~~ oocyte occurs after the donor genetic material is introduced into the oocyte.

15) (CURRENTLY AMENDED) The method of claim ~~11~~ 1 wherein activating comprises introducing to the oocyte ~~or the NT embryo~~ cytoplasm from a fertilized oocyte.

16) (CURRENTLY AMENDED) The method of claim ~~11~~ 1 wherein activating comprises removing the donor genetic material from the ~~NT embryo~~ oocyte and introducing the donor genetic material to an enucleated fertilized oocyte.

17) (CURRENTLY AMENDED) The method of claim ~~11~~ 1 wherein activating comprises artificially activating the oocyte ~~or the NT embryo~~.

18) (CURRENTLY AMENDED) The method of claim ~~11~~ 1 wherein activating comprises contacting the oocyte ~~or NT embryo~~ with cycloheximide.

19) (ORIGINAL) The method of claim 1 further comprising enucleating the oocyte before introducing the donor genetic material.

20) (ORIGINAL) The method of claim 1 further comprising enucleating the ~~NT embryo~~ oocyte after introducing the donor genetic material to the oocyte, wherein enucleating the ~~NT embryo~~ oocyte comprises removal of maternal genetic material.

21) (ORIGINAL) The method of claim 1 wherein the oocyte is arrested at metaphase I as a result of exposure to an arresting agent.

22) (ORIGINAL) The method of claim 21 wherein the oocyte is enucleated while in metaphase I.

23) (ORIGINAL) The method of claim 1 wherein the non-human mammal is a pig.

24) (ORIGINAL) The method of claim 1 wherein the non-human mammal is a cow.

25) (ORIGINAL) The method of claim 1 further comprising incubating the NT embryo such that the NT embryo undergoes cell division.

26) (CURRENTLY AMENDED) A method of producing a cloned non-human, non-primate mammal, the method comprising introducing donor genetic material, in the form of a cell or nucleus, from a differentiated cell of a non-human, non-primate species into an oocyte

of the same species, and activating the oocyte, thereby yielding ~~to yield~~ a cloned non-human, non-primate mammalian NT embryo and incubating the NT embryo such that the NT embryo undergoes cell division wherein:

a) the donor genetic material is at metaphase; and

b) incubating the NT embryo occurs after transfer of the NT embryo to a host mammal.

27) (PREVIOUSLY AMENDED) A method of producing a cloned non-human, non-primate mammal, the method comprising introducing donor genetic material, in the form of a cell or nucleus, from a differentiated cell or a non-human, non-primate species into an oocyte of the same species, and activating the oocyte, thereby yielding ~~to yield~~ a cloned non-human, non-primate mammalian NT embryo and incubating the NT embryo such that the NT embryo undergoes cell division wherein:

a) the donor genetic material is at metaphase; and

b) incubating the NT embryo comprises culturing the NT embryo in vitro until at least the 2-cell stage.

28) (ORIGINAL) The method of claim 27 further comprising transferring the NT embryo to a host mammal of the same species after the in vitro incubation.

29) (ORIGINAL) The method of claim 28 wherein the NT embryo undergoes cell division in the host mammal and develops into a fetus.

30) (ORIGINAL) The method of claim 28 wherein the NT embryo undergoes cell division in the host mammal and develops into an offspring.